Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

HW#4: Parallel & Perpendicular Lines

Honors Geometry

Complete the following problems in your notebook. Graph the lines and figures for each problem when given in order to further support your answer.

1. Determine which of the city streets, if any, are parallel or perpendicular.

Park St:

Main St:

2nd St:

Sea St:

1. Determine whether the following statements are *always, sometimes,* or *never* true. If you say *sometimes*, provide an example when the statement would be false, and if you say *never*, correct the statement to make it true.
   1. A horizontal line is parallel to the x-axis.
   2. Two lines with positive slopes are parallel.
   3. Two lines with the same slope and different y-intercepts are perpendicular.
2. A square is a four-sided shape where opposite sides are parallel and adjacent sides are perpendicular, therefore creating 4 right angles. Mr. Madonna believes that a square formed by the points . Show that he is correct by proving the opposite sides are parallel and the adjacent sides are perpendicular based off your knowledge of slope.
3. Construct an example of parallel and perpendicular lines in the coordinate plane. Prove that your lines are parallel and perpendicular by using your knowledge of the slope relationships.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

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